CLAIMS

We claim:

1. A three-phase electricity meter operable to measure and display an amount of consumed three-phase electricity, the meter comprising:

a meter housing including a base member and a cover member;

a measurement circuit board enclosed within the housing, the circuit board including a measurement circuit operable to determine the amount of consumed electricity;

a first bus bar having a pair of blades extending through the housing and configured to receive the supply of three-phase electricity;

a second bus bar having a second pair of blades extending through the housing and configured to receive the supply of three-phase electricity;

a third bus bar having a third pair of blades extending through the housing and configured to receive the supply of three-phase electricity;

a first contact member having a first end in contact with the circuit board and a second end in contact with the first bus bar;

a second contact member having a first end in contact with the circuit board and a second end in contact with the second bus bar;

a third contact member having a first end in contact with the circuit board and the second end in contact with the third bus bar; and

a test switch member movable between a test position and an operating position, the test switch member being engaged with the first, second and third contact members such that when the test switch is moved to the test position, the second end of each of the contact members is moved out of contact with the first, second and third bus bars.

2. The electricity meter of claim 1 wherein the test switch member includes an actuating tab extending through the base member such that the

actuating tab can be grasped to move the test switch member between the test position and the operating position.

3. The electricity meter of claim 1 wherein each of the flexible contact members include a flexible finger terminating with the second end of the flexible contact member, each flexible finger being biased into contact with one of the bus bars and engaged by the test switch member.

4. The electricity meter of claim 1 wherein each of the flexible contact members include a connection pin, each connection pin being accessible from the exterior of the meter housing.

5. The electricity meter of claim 3 wherein the test switch member includes a plurality of engagement posts, wherein each of the flexible fingers on the contact members are received between two of the engagement posts such that the engagement posts move the flexible fingers away from the bus bars when the test switch member is moved to the test position.

6. The electricity meter of claim 1 wherein the test switch member includes a locking pin accessible from the exterior of the enclosed meter housing.

7. The electricity meter of claim 1 wherein the test switch member is formed from a generally non-conductive material.

8. The electricity meter of claim 1 further comprising a plurality of contact blades supported in the housing, each contact blade having a flexible contact arm, wherein the flexible contact arm is biased into contact with the circuit board.

9. The electricity meter of claim 1 wherein the test switch member includes at least a pair of support flanges, each of the support flanges being positioned in contact with one of the bus bars such that the test switch member is supported along the bus bars.

10. The electricity meter of claim 4 wherein each of the connection pins are configured to receive a test voltage and the bus bars are configured to receive a test current when the test switch member is in the test position.

11. An electricity meter operable to measure and display an amount of consumed electricity, the meter comprising:

an enclosed meter housing including a base member and a cover member;

a measurement circuit board enclosed within the housing, the measurement circuit board providing a mounting platform for a measurement circuit operable to provide a measured value of consumed electricity;

a plurality of bus bars each having at least one blade extending through the meter housing and configured to receive the electricity;

a plurality of contact members, each contact member having a first end in contact with the circuit board and a flexible finger biased into contact with one of the bus bars such that the flexible contacts provide an electrical connection between the bus bars and the circuit board; and

a test switch member configured to engage each of the flexible fingers of the plurality of contact members, the test switch member being movable between a test position and an operating position, wherein when the test switch member is in the test position, all of the flexible fingers are out of contact with the bus bars.

12. The electricity meter of claim 11 wherein the test switch member includes an actuating tab extending through the meter housing such that the test switch member can be moved between the test position and the operating position from external to the meter housing.

13. The electricity meter of claim 11 wherein each of the contact members include a connection pin, each connection pin being accessible from the exterior of the meter housing.

14. The electricity meter of claim 11 wherein the test switch member includes a plurality of engagement posts, wherein each of the flexible fingers of the contact members are received by two of the engagement posts such that the engagement posts move the flexible fingers away from the bus bars when the test switch member is moved to the test position.

15. The electricity meter of claim 11 wherein the test switch member includes a locking pin accessible from the exterior of the housing.

16. The electricity meter of claim 11 wherein the test switch member is formed from a generally non-conductive material.

17. The electricity meter of claim 11 wherein the electricity meter includes three bus bars and three flexible contact members.